

## **REMARKS**

Reconsideration of the above-identified Application is respectfully requested. Claims 1-13 are in the case. Claims 1, 5, 6 and 8-11 have been amended. The Abstract has been amended.

Applicants acknowledge with appreciation the statement of the allowability of Claims 7 and 11-13 if rewritten in independent form. However, in view of the positions taken hereinbelow regarding the allowability of their base claims, Applicants respectfully decline to so re-write those claims at this time.

Regarding the objection to the Abstract, the Abstract has been amended to overcome the ground for this objection. It is respectfully submitted that the Abstract is now in proper form. Wherefore reconsideration and withdrawal of this objection are respectfully requested.

Regarding the objection to the claims, all of the corrections kindly suggested by the Examiner have been made by amendment herein. It is respectfully submitted that the claims are now in proper form. Wherefore reconsideration and withdrawal of this objection are respectfully requested.

Regarding the rejection of Claims 1-6 and 8-9 under 35 U.S.C. § 103(a) as allegedly being unpatentable over the patent to Marlow et al., this rejection is respectfully traversed. Claim 1, the only independent claim subject to this rejection, recites a comparator including a fourth transistor (M4) being provided, the gate of a third transistor (M3) being connected to the gate of a first transistor (M1) and the main current path of the first transistor being connected between the one end of the main current paths of the first and a second transistor (M1, M2) and connected via the main current path of the fourth transistor (M4) to the other end of the main current path of the second transistor (M2).

This is neither shown nor suggested in the patent to Marlow et al. The patent to Marlow et al. apparently relates to a comparator circuit with hysteresis. However, they merely modify the effective width of their input transistors by switching a transistor in parallel, depending on the output condition. Thus, they aim to achieve an offset or hysteresis due to effectively different sized input

transistors. By contrast, in accordance with the invention as set forth in Claim 1, the recited additional transistors are not merely switched in parallel with the input transistor, but, in addition, they add current to the opposite side current branch. As a result, there is always current flowing on both sides, which allows faster switching at low tail currents. Again, this is neither shown nor suggested by Marlow et al. Further, it can be seen that this is not merely substituting a different polarity transistor for their MINN3, as such would result in the substitute transistor being connected on the same input side, but merely the opposite polarity end of their MINN transistor. Teaching or suggestion for connecting a transistor to an end of the other side input transistor is not found in Marlow et al., rather only in the teachings of the instant Specification, along with the attendant novel speed benefits. The other art of record is even less relevant.

Accordingly, for the above reasons, it is respectfully submitted that independent Claim 1 is allowable over Marlow et al. and, indeed, all of the art of record, whether considered alone or in any combination. Claims 2-6 and 8-9 all depend, either directly or indirectly, from Claim 1 and so are allowable as well for the same reasons, as well as for the additional limitations found therein. Wherefore reconsideration and withdrawal of this rejection are respectfully requested.

Regarding the rejection of Claim 10 under 35 U.S.C. § 103(a) as allegedly being unpatentable over the patent to Crawford in view of the patent to Marlow et al., this rejection is respectfully traversed. Independent Claim 10 recites an ASK demodulator including a comparator with limitations similar to those discussed above in connection with Claim 1. Crawford was cited for showing an ASK demodulator, and it was admitted that he does not show a demodulator implemented using the structure recited in the claim. The reasons why Marlow et al. do not show or suggest the limitations discussed above in connection with Claim 1, which are similar to those in Claim 10, are set forth hereinabove, and are incorporated here by reference as if set forth in their entirety. The other art of record is even less relevant.

Accordingly, for the above reasons, it is respectfully submitted that independent Claim 10 is allowable over Crawford, Marlow et al. and, indeed, all of the art of record, whether considered alone or in any combination. Wherefore reconsideration and withdrawal of this rejection are respectfully requested.

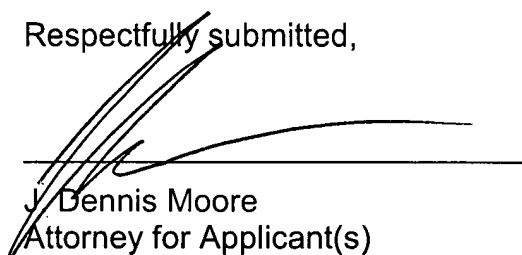
Regarding the objection to Claims 7 and 11-13 as being dependent upon rejected base claims, in view of the arguments for the allowability of those base claims set forth hereinabove, it is respectfully requested that this objection be reconsidered and withdrawn.

It is respectfully submitted that the claims recite the patentably distinguishing features of the invention and that, taken together with the above remarks, the present application is now in proper form for allowance. Reconsideration of the application, as amended, and allowance of the claims are requested at an early date.

While it is believed that the instant amendment places the application in condition for allowance, should the Examiner have any further comments or suggestions, it is respectfully requested that the Examiner contact the undersigned in order to expeditiously resolve any outstanding issues.

To the extent necessary, the Applicants petition for an Extension of Time under 37 C.F.R. §1.136. Please charge any fees in connection with the filing of this paper, including extension of time fees to the Deposit Account No. 20-0668 of Texas Instruments Incorporated.

Respectfully submitted,



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